

LAKE: WESSERUNSETT L (VLMP 25 )  
TOWN: MADISON  
COUNTY: SOMERSET

MIDAS: 70  
TRUE BASIN: 1  
SAMPLE STATION: 1

## WHOLE LAKE INFORMATION

MAX. DEPTH: 7 m. (22 ft.)

MEAN DEPTH: 4 m. (14 ft.)

DELORME ATLAS #: 20

USGS QUAD: MADISON EAST

LEW REGION B: Rangeley Lakes (Strong)

## **NEW FISH MANAGEMENT: Warmwater & Coldwater**

### TRUE BASIN CHARACTERISTICS

SURFACE AREA: 572.0 ha. (1413.4 a.)

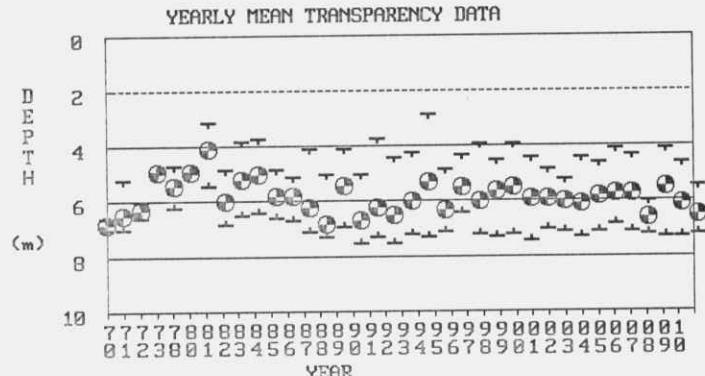
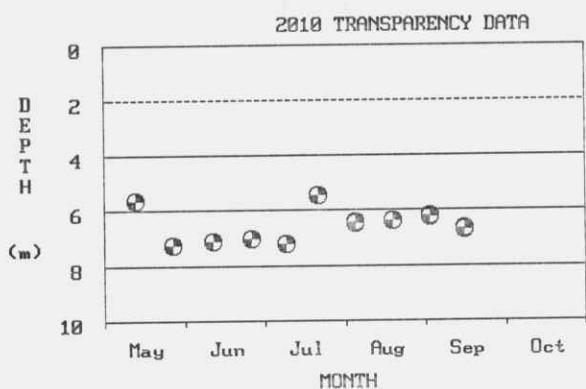
FLUSHING RATE: 0.89 flushes/yr.

VOLUME: 22888613.0 cu. m. (18567 ac.-ft.)

DIRECT DRAINAGE AREA: 40.82 sq. km. (15.76 sq. mi.)

PLEASE NOTE THE FOLLOWING: The SAMPLE STATION # refers to the location sampled. The term TRUE BASIN is used to define areas within a lake that are separated by shallow reefs or shoals and therefore function as separate lakes. There are approximately 50 lakes in the state that have more than 1 True Basin. True Basin Characteristics are now being included in the first section of these reports to enable users of the Phosphorous Loading Methodology to better evaluate the data. If there is no data for a particular True Basin, True Basin Characteristics must be obtained from the DEP. WESSERUNSETT L has 1 True Basin(s).

## SECCHI DISK TRANSPARENCY GRAPHS:



Note: 2010 graphs may indicate multiple readings taken on a given day.

#### SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

\* indicates that Secchi disk was visable at bottom of lake (or one reading used in calculation was visable)].

YEAR	MEAN	MEAN	MEAN	MEAN	COND. (SPU)	ALK (mg/l)	TOTAL PHOS. (uS)	MEANS (ppb)			SECCHI DISK (m.)			CHLOROPHYLL A(ppb)			TROPHIC STATE INDICES			
	COLOR	pH	ALK	EPI				BOT.	PRO.		MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	EPI PHOS		
				/cm)	CORE	GRAB	GRAB	GRAB									C	G	SEC	CHL
1970	-	-	-	-	-	-	-	-	-	-	6.6*	6.8*	7.0*	4	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-	-	5.2	6.5*	7.0*	4	-	-	-	-	-	-
1972	-	-	-	-	-	-	15	6	-	-	6.0	6.3	6.6	3	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	7	-	-	4.9	4.9	4.9	1	-	-	-	-	-	-
1978	15	7.20	14.0	63	-	-	-	-	-	-	4.7	5.4*	6.2*	5	2.2	2.2	2.2	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	4.9*	4.9*	4.9*	1	-	-	-	-	-	-
1981	20	7.20	15.0	48	10	-	-	-	-	-	3.1*	4.1*	5.4*	3	4.1	4.1	4.1	-	-	-
1982	-	-	-	-	-	-	-	-	-	-	4.8	6.0*	6.8*	5	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-	-	3.8	5.2	6.5	6	-	-	-	-	46	-
1984	25	7.15	13.0	-	6	-	-	-	-	-	3.7	5.0*	6.4*	6	3.0	3.0	3.0	-	-	-
1985	-	-	-	-	-	-	-	-	-	-	4.8	5.8*	6.6	7	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-	-	5.1	5.8	6.7	4	-	-	-	-	-	-
1987	17	7.10	18.0	50	8	-	-	-	-	-	4.1	6.2*	7.1*	6	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	5.0	6.8*	7.3*	6	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	4.1	5.4	6.9	6	-	-	-	-	44	-

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	COLOR (SPU)	pH	ALK	EPI				MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	EPI PHOS			
				/cm	CORE	GRAB	GRAB	GRAB				C	G	SEC	CHL			
1990	-	-	-	-	-	-	-	-	5.0	6.7*	7.5*	6	-	-	-	-	-	-
1991	19	7.13	25.0	60	7	-	-	-	3.7	6.2*	7.3*	5	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	4.4	6.5*	7.5*	6	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	4.2	6.0*	7.2*	5	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	2.8	5.3*	7.3*	7	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	4.8	6.3*	7.1	7	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	4.3	5.5	6.4	6	-	-	-	-	43	-
1997	19	7.41	18.0	66	7	-	-	-	3.9	6.0*	7.2*	6	3.2	3.2	3.2	-	-	-
1998	14	-	-	-	-	-	-	-	4.5	5.6*	7.3*	6	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	3.9	5.5*	7.2*	6	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	4.4*	5.9*	7.4*	7	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	4.8	5.9	7.0	6	-	-	-	-	40	-
2002	18	-	19.0	73	7	-	-	-	5.2	6.0	7.1	6	3.8	3.8	3.8	-	-	39
2003	-	-	-	-	-	6	-	-	4.4	6.1*	7.3*	5	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	4.6	5.8	7.1	5	-	-	-	-	41	-
2005	22	-	-	-	7	6	-	-	4.1	5.7	6.8	5	-	-	-	-	-	42
2006	23	-	-	-	-	8	-	-	4.3	5.7	7.1	6	-	-	-	-	-	42
2007	15	7.54	16.3	60	-	7	-	-	6.0	6.6*	7.2*	6	-	-	-	-	-	-
2008	23	-	-	-	-	7	-	-	4.1	5.5*	7.3*	5	-	-	-	-	-	-
2009	-	-	-	-	-	7	-	-	4.6*	6.1*	7.3*	5	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	5.4	6.5*	7.2*	5	-	-	-	-	-	-
SUMMARY:	19	7.22	17.3	60	7	8	6	-	2.8*	5.8*	7.5*	36	2.2	3.3	4.1	-	-	42

## LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH m	SAMPLE		DATE											
	08/16/07 °C	08/13/08 ppm	08/28/08 °C	08/28/08 ppm	09/08/08 °C	09/08/08 ppm	09/22/08 °C	09/22/08 ppm	08/20/09 °C	08/20/09 ppm	08/18/10 °C	08/18/10 ppm	09/02/10 °C	09/02/10 ppm
0.0	22.9	7.1	21.7	9.0	21.4	8.1	21.9	8.0	17.4	8.4	26.4	7.7	23.6	7.9
1.0	22.9	7.1	21.5	9.0	21.4	8.1	21.9	8.0	17.5	8.4	26.3	7.7	23.6	7.9
2.0	22.8	7.1	21.5	8.9	21.4	8.1	21.8	8.0	17.5	8.4	26.3	7.8	23.5	7.9
3.0	22.8	7.0	21.4	8.7	21.3	8.0	21.8	8.0	17.5	8.4	26.2	7.8	23.5	7.8
4.0	22.8	7.0	21.4	8.6	21.3	8.0	21.8	8.0	17.5	8.4	23.8	8.1	23.5	7.8
5.0	22.8	7.0	21.2	8.1	21.3	8.0	21.8	8.0	17.5	8.4	22.4	5.1	23.2	7.2
6.0	22.8	7.0	20.6	6.0	20.7	7.3	21.7	7.9	17.5	8.4	21.6	2.3	23.1	7.1
7.0	22.8	7.0	19.6	1.7	20.5	7.2	21.7	7.9	17.5	8.4	20.8	0.5	22.9	5.2
													22.2	5.6

## WATER QUALITY SUMMARY

**WESSERUNSETT Lake**, Madison (Somerset County)

Midas: 0070, Station: 01 - Primary

Introduction: The Maine Department of Environmental Protection (Maine DEP) and the Volunteer Lake Monitoring Program (Maine VLMP) have collaborated in the collection of lake data to evaluate water quality, track algal blooms, and determine historical water quality trends. This dataset does not include bacteria, mercury, or nutrients other than total phosphorus (TP).

Water quality monitoring datasets for Wesserunsett Lake have been collected since 1970. During this period, 7 years of basic chemical information was collected along with 32 years of Secchi disk transparency (SDT) measures. In summary, the water quality of Wesserunsett Lake is considered to be average, based on measures of SDT, total phosphorus, and chlorophyll-a (Chla). The potential for nuisance algal blooms on Wesserunsett Lake is low.

Water quality measures: Wesserunsett Lake is a non-colored lake (average color 19 SPU) with an average SDT of 5.8 meters (19 feet). The range of upper water column TP for Wesserunsett Lake is 6-10 parts per billion (ppb) with an average of 7 ppb, while Chla ranges from 2.2-4.1 ppb with an average of 3.3 ppb. Recent dissolved oxygen (DO) profiles show low DO depletion in deep areas of the lake. The potential for TP to leave the bottom sediments and become available to algae in the water column (internal loading) is low. Oxygen levels below 5 parts per million can stress certain cold water fish, and a persistent loss of oxygen may eliminate or reduce habitat for sensitive cold water species.

Further information: See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at <http://www.lakesofmaine.org/> and/or <http://www.maine.gov/dep/blwq/lake.htm>, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

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